National Numbering Plan and Procedures

TRR

This document sets out the key principles and procedures of the Telecommunications and Radiocommunications Regulator for establishing and managing numbering for telecommunication services.

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Preface

The purpose of this document is to inform stakeholders about the management, administration, and governance of the National Numbering Plan of the Republic of Vanuatu by the Telecommunications and Radiocommunications Regulator (TRR) as outlined in the Telecommunications and Radiocommunications Regulation Act No. 30 of 2009 (the Act).

NATIONAL NUMBERING PLAN AND PROCEDURES FOR VANUATU

1   INTRODUCTION

The Telecommunications and Radiocommunications Regulator (TRR) is responsible under section 7(2)(d) of the Telecommunications and Radiocommunications Regulations Act–No. 30 of 2009 (the "Act") to "allocate telephone number blocks and other telecommunication systems numbers as administered by the International Telecommunications Union (ITU) to service providers". This National Numbering Plan and Procedures addresses numbering for voice and related telecommunications services in Vanuatu in accordance with these responsibilities.

Numbers and electronic addresses are necessary resources to facilitate the development of new products and services and to provide means of accessing them. As necessary resources, they must be made available in a fair, transparent and efficient manner within an acceptable time frame to the relevant users.

In 2008, the first changes in number management were introduced in the form of changes in the length of national numbers. Fixed lines numbers remained at 5 digits while cellular mobile numbers were assigned a 7-digit length, changing telephone numbers for Vanuatu's mobile phone services. This change was deemed necessary under the Government's plan to open the telecommunications market to competition. More competition was expected to increase the number of customers and suppliers, so more numbers were necessary. Numbering management was transferred from Telecom Vanuatu Limited (TVL) to TRR.

In developing this Numbering Plan and Procedures, TRR has taken the following approach:

a.   Sound Numbering Policy
Efficient telecommunications services are a key factor in a country's development. A sound numbering policy facilitates access to telecommunications services and enables effective competition between services and service providers.

b.   Transparency and Fairness
Management of the numbering plan should be based on principles of transparency and fairness, having as the final beneficiaries the individuals and society in Vanuatu. Plan design and management are matters of national interest. Fair and equitable access to numbers is essential to the development of competition. The lack of numbering resource or discriminatory access to service providers will distort competition in the provision of telecommunication services in Vanuatu.

c. Numbering, Naming and Addressing

Numbering, naming, and addressing are intrinsic to the design of communications networks because they provide the information that enables communications users to be connected. The numbering plan should provide what is necessary for network and service evolution.

d. ITU- T Recommendations

The maximum length and structure of numbers should be within international standards. The plan follows ITU-T Recommendations on the subject, especially Recommendation E.164, and reflects the technical capabilities of service providers and advances in services and network.

e. Number Scarcity

The plan should provide for customer preference and ease of use and should protect their interest, comfort, and benefit. Any increase in demand for numbers can lead to particular areas of scarcity and ultimately to the exhaustion of the numbering resources, therefore numbers must be used by Service Providers in an efficient manner.

f. Access to Numbering Resources

Service providers must have access to numbering resources to enable final consumers to access the telecommunication services offered in Vanuatu.

g. Drivers for Change

This plan should address and recognize the drivers of and changes in telecommunication services, such as:

- Rising demand for mobile services,

- Increase in data services,

- Convergence of information, media, and communication services,

- Rising demand for other services and applications not attached to a fixed or permanent location,

- Reduced costs for transporting calls,

- Increasing role of machine-to-machine communications.

h. Numbering Plan Evolution

The numbering plan should provide a bridge between the current communications ecosystem and the emerging and future communications environments, which may be predominantly internet-based services and next generation networks.

i. *Service Provider's Accountability*
The allocation of numbering resources to service providers should recognize their accountability on its usage in services delivered to final users.

2 GENERAL PRINCIPLES FOR THE NATIONAL NUMBERING PLAN

2.1 ITU-T Numbering Recommendations

The numbering plan follows ITU-T recommendations for national numbering plans, specifically Recommendations E.164 (2010/11) and E.101 (11/2009) for definitions of terms for identifiers (names, numbers, addresses, and other) for public telecommunications services and networks.

2.2 Demand for Numbering Resources

Numbering requires continuous changes to keep pace with liberalization, deployment of new technologies, and introduction of new services. The plan should be adequate for effective competition and future demands and should provide block of numbers for the following applications:

- Fixed telephony,

- Mobile telephony,

- Internet-based telecommunications services,

- Short codes including Emergency services and directory services,

- Value-added information services, countrywide services, and commonly recognized national services,

- Define numbering blocks reserved for future allocation and applications.

2.3 Numbering Plan Changes

Consumers should find the numbering plan easy to understand and service providers should find it easy to implement. Changes in the plan should be kept to a minimum because changes can affect consumers and service providers—driving up costs for consumers (e.g., to cover changes in stationery, signage, telephone equipment, etc.) and creating inconvenience by disrupting dialing habits and requiring service providers to condition their networks.

2.4 Numbering Plan Reviews

TRR recognizes the need to monitor the evolution of markets and telecommunications technology to introduce changes in the design of the National Numbering Plan (NNP) and the allocation rules of the numbering resources of Vanuatu. TRR will conduct regular reviews of this National Numbering Plan, typically at five year intervals. However there are currently considerations being given to convergence of fixed and mobile services which might require an earlier revision to this issue. If required this would be done after due consultation.

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2.5   Usage Efficiency

Telecommunications operators should use numbers in an efficient and effective manner; numbers are scarce and limited resources.

2.6   Flexibility

The NNP should be flexible to accommodate changes in consumer and users behavior.

2.7   Promote Development of the Telecommunications Sector

Numbers are useful resources to promote competition and innovation in telecommunications services. TRR will attend promptly to service providers' requirements and applications and will be responsive to end user needs and the advancement of telecommunication services.

2.8   Practical Application of Numbers

The NNP should promote technical and economic feasibility of number allocations.

2.9   Simplicity and Transparency

The NNP should be designed to promote a better understanding by end users of the services and fairness to service providers.

2.10   Resilience

The NNP should be designed to be responsive to demand changes and long term telecommunication needs.

2.11   National Resource

Numbers are regarded as a national resource that TRR administers, therefore, no licensee shall be entitled to ownership of any resource allocated to it or to any customer. Licensees shall not use any other numbers than the ones TRR allocates, and they must be used in accordance with this NNP.

3   DEFINITIONS

Any word, phrase, or expression in the plan shall, unless the context requires otherwise or it is expressly defined herein, have the same meaning as in the Act.

Allocation
A granting of rights of use of numbers from designated number ranges to authorized service providers. Allocation of numbers grants a right to use the allocated numbers in accordance with the numbering plan but is not a property transfer.

Allocated
The status of a number or a number block that has been assigned to a service provider for a particular purpose.

Allocation Certificate
A formal document that testifies allocation of a number block (or blocks) to a service provider. The document may be a physical document or an electronic document.

Annual Numbering Report
An annual report produced by TRR that summarizes information on the status of the National Numbering Plan and allocated numbering resources and advancements in the field and reports from service providers.

Closed dialing plan
A dialing plan where the National (Significant) Numbers [N(S)N] are used when dialing geographic numbers.

Country code (CC)
As defined in Recommendation ITU-T E.101. The CC for the Republic of Vanuatu is 678.

End User
Person who makes use of telecommunications services within Vanuatu.

Fixed Services
Telecommunications services provided through a fixed terminal on a fixed telephone network..

Free
Designates the status of a number or a number block available for allocation.

Guideline
General rules or principles to apply the plan.
International Prefix
As defined by Recommendation ITU-T E.101.

Service Provider Numbering Plan

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A plan that a Licensed Service Provider adopts for numbers as are allocated to it by TRR.

Mobile Services
Telecommunications services typically provided through a mobile terminal on a mobile telephone network.

National Significant Number (NSN)
As in Recommendation ITU-T E.101 digits that follow the CC. The NSN usually consists of the National Destination Code (NDC) followed by the Subscriber Number (SN). In Vanuatu the NSN is identical to the SN.

Number
A string of decimal digits that uniquely identifies a subscriber or a network point where a service or information is provided.

Number Block
A number block is a sequence of numbers in the NNP that can be allocated to a service provider. In this plan a number block can consist of 1, 10, 100, 1,000 or 10,000 numbers as identified in the plan for a specific number range.

Numbering Plan
A plan that specifies the format and structure of the numbers used in telecommunications networks. The numbers in the plan can have either a uniform or a variable length, or both. In Vanuatu the numbering plan conforms to ITU–T Recommendation E.164.

Numbering Plan List (Number List)
The list of numbers of the NNP published by TRR on its website and updated on a regular basis in order to provide information on the status of the plan (e.g., allocated, free, protected or reserved).

Open dialing plan
An open dialing is a dialing plan where both numbers on the local level (SN (without area code) and numbers on the national level are used when dialing geographic numbers.

Premium Rate Services (PRS)
Telecommunications services of added value to be paid by the calling subscriber, rates for which are typically higher than those applied to calls to subscribers of mobile services and fixed services.

Protected
'Protected' indicates that numbers are protected until the plan is changed or, where a date is shown, until that date.

PSTN
Public Switched Telephone Network.

Regulation

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Rules or directives governing the usage, management, and allocation of NNP numbering resources.

Schedules
Specific sections in this plan that specify the rules to apply the plan.

Short Code
A short number (i.e. not longer than 5 digits).

SMS
Short Message Service.

Special Services
Telephone services charged at special rates (with respect to callers)—from free up to and including the national rate. Charges for these calls can be paid by the caller or the called party, or be shared between them.

Subscriber Number (SN)
A number identifying a subscriber in a network or numbering area.

Toll Free
A service where the caller is not charged for the call.

UMTS
Universal Mobile Telecommunications System.

4 NATIONAL NUMBERING PLAN

4.1   Structure of the NNP

This plan makes use a closed dialing plan based on 5-digit NSN length for fixed telephony services and a 7-digit NSN length for mobile and Internet-based services (except for short codes, which are explicitly identified as such). Table 4-1 shows the structure of the plan, by the leading digit of the national number. Section 6 specifies the NSN for numbers for specific services and the allocation block sizes.

Leading Digit	Purpose
0	Access numbers for International Service (00), Special Services, Premium Rate Service and network Routing Services
1	Short codes
2	Numbers for geographical areas - fixed telephone services
3	Numbers for geographical areas - fixed telephone services
4	Numbers for geographical areas - fixed telephone services allocated prior to October 2011. All other blocks are Protected.
5	Numbers for non-geographical services - mobile services
6	Protected
7	Numbers for non-geographical services - mobile services
8	88 Fixed telephone services blocks allocated prior to October 2011. 840 Internet Access All other blocks are Protected.
9	9000 – 9009 VOIP including Nomadic, excluding mobile services All other number blocks protected

Table 4-1 Basic Structure of Numbering Plan

4.2   Short Codes

4.2.1   Purpose of Short Codes

Short Codes are a numbering resource that provides for easy access by Service Providers' customers to public, network and value added services. Therefore they are important to those customers as they are designed to be easy to remember. This is an area where innovation and

business initiatives can result in service advancement and benefit government and society in Vanuatu.

4.2.2 Short Codes and Value Added Services

TRR foresees a development process and transition of short codes in Vanuatu. It is of public interest that TRR oversees the process, taking account of that use of Short Codes to provide different value added services and the approval of the final prices to customers to use such services.

4.2.3 Harmonization of Short Codes

The use of short codes by different service providers will be coordinated, and TRR, in coordination with service providers, will harmonize the existing Short Codes. Although the ITU-T does not provide recommendations for Short Codes, except E.161.1, the harmonization and management of the codes will take into account regional and international agreements, standards and recommendations, including the Electronic Communications Committee (ECC Recommendation (06)03 – Principles Related to Numbering Plans for SMS Short Codes).

4.2.4 Management of Short Codes

To facilitate the harmonization and management of the Short Code resources, the Codes will be designated in types according to their use:

Type A is designated for emergency service codes and other public services. The short code is allocated against a service (not associated with any licensed service provider). Callers must be able to call or send an SMS - to such a code at any time from any and all networks without charge.

Type B is for use as short codes, accessible from any network ("off-net"). All licensed service providers shall ensure accessibility of these short codes from their networks.

Type C is for use as "on-net" codes for the purpose of accessing the services of a single licensed service provider on that provider's own network. Where more than one value added Service provider offers the service each network may select the appropriate call destination.

4.2.5 Short Codes Allocation

Once the harmonization is complete, TRR will identify and allocate a limited number of Short Codes to all authorized service providers, without requiring applications, for their use as Type C Codes. The Type C Short Codes assigned by Service Providers for the provision of support services, e.g. services activation, help desk, directory calls, etc., should be provided free of charge to end users.

4.2.6 Use of Short Codes

Short Codes used to access services by fixed-line customers shall commence with the digit 1 and the same codes must be used for the same or similar services provided via SMS. The leading

digits used for Short Codes to access SMS services will be determined as the harmonization is completed.

4.2.7   *Application for Short Codes*

Licensed service providers must apply to TRR for all future allocations of Short Codes, other than the general allocation of Type C codes referred to above, prior the commencement of the offering and provision of services to customers.

5 RULES AND PROCEDURES ON NATIONAL NUMBERING PLAN

The plan is governed by a number of rules outlined in this section. These rules apply universally to all aspects of the plan and generally describe the administrative mechanisms whereby the plan can be executed. In addition to the rules, a set of schedules attached to this document defines the plan in relation to specific numbers.

The rules govern the specifications and the application of the plan and the licensees' numbering plans. A service provider who has allocated numbers shall have its own numbering plan that complies with these rules. Each licensed service provider with allocated numbers must submit its numbering plan to TRR and report to TRR on a regular basis the status of its usage of numbers.

TRR will publish information on the NNP and the current usage of numbers on its website at www.trr.vu.

5.1 Rights and Responsibilities

5.1.1 Guiding Principles

TRR is responsible for developing and managing the NNP. Numbers are national resources and TRR will be guided by the following principles when allocating, reserving, and managing numbers:

- Vanuatu retains the ownership of the national numbering resources. TRR manages this resource by allocating the rights to use the resource in blocks of numbers as described in this NNP.

- The NNP should provide a stable framework for development of communications in Vanuatu, with sufficient capacity and flexibility to meet demands for block numbers by all users of the plan in Vanuatu.

- The NNP will, while appropriate, remain compatible with relevant international agreements, standards, and pertinent recommendations.

- TRR will manage the NNP in such a way as to ensure that there are sufficient numbers available to meet demands that subscribers and licensed service providers can have.

- The NNP will, wherever possible, seek to ensure that numbers of different types give a broad indication of service type and/or tariff so that users can be aware of the service type they are using and the likely charge for it.

- TRR will ensure that costs or inconvenience to subscribers; users and licensed service providers are objectively justified, and kept to the minimum.

- TRR will allocate numbers in a fair and equitable manner, normally to the first service provider who requests the respective numbers (i.e., on a first-come-first-served basis). TRR will only allocate numbering capacity to service providers who meet eligibility criteria set out in clause 5.2.

- TRR will take into account the need to anticipate growth in demand for telecommunications services as well as development of innovative services. In particular, previous numbering allocations will be taken into account when considering new requests for numbers.

- TRR will update the NNP where changes to it are deemed necessary, and such changes should be implemented in a way that minimizes disruption, cost and inconveniences to end users and service providers.

5.1.2 *Service Providers' Responsibilities*

Service providers who have numbers allocated shall publish their own numbering plan, detailing their usage in accordance with these rules, and shall submit their plan to TRR annually by January 31. Service providers must:

- Recognize that the allocation of numbering ranges is a grant of right of use and not a property.

- Use numbers allocated in accordance with the purpose given in the numbering plan, and adopt any changes or adjustment that TRR might decide to implement.

- Surrender any number block where numbers within that block have not been assigned to end users who have then commenced services within two years of its allocation, unless TRR agrees otherwise.

- Conform to any directive issued by TRR concerning the NNP.

- Inform TRR when the usage of a number block ceases and relinquish the allocation unless it is needed for another use in accordance with the provisions of the NNP.

- Not allocate network specific numbers that conflict with the numbering plan.

- If TRR introduces changes in the NNP, inform callers that changes have occurred and be co-operative with TRR and other service providers on the technical and publicity implementation of the changes.

- Not transfer or trade the allocated rights to use numbers and to withdraw from service any number traded by an end user. For the avoidance of doubt, changes in the allocation resulting from Number Portability are permitted.

5.2   Application for Numbers

5.2.1   Eligibility Criteria

Only licensed service providers may apply for allocation of the rights to use a number range. Only Service Providers that have achieved the target utilization for previously allocated rights to use of numbers blocks for the intended service, or those launching a new service may apply for an allocation.

The application must include the following information to TRR on an appropriate application form (see Appendix B):

- Name and contact details;

- A valid signed and dated letter of authorization with any application submitted on behalf of others;

- Details of the license granted under the Act under which the applicant intends to use the numbering capacity sought;

- A preferred numbering range and, where appropriate, second and third preferences;

- Where relevant, details of the type of telecommunications service intended on the range and the proposed tariff rate of the service;

- The utilization achieved for the rights to use of number blocks already allocated to the applicant for this service;

- Any other information that the applicant considers necessary or appropriate to justify the application;

Applicants shall also provide to TRR any other information, judged by TRR to be relevant to the application. This may include a brief description of the applicant's technical and operational system configuration.

At its sole discretion TRR may introduce e-commerce application procedures, which may include e-mail or an on-line Number Management System. The introduction of such procedures may require changes to the format of Appendix B but the same minimum information will be required. Should e-commerce procedures be implemented electronic forms of written or physical documents referred to in these regulations will be used.

5.2.2   Timing of Applications

Applications for numbering allocations should not, in general, be made more than six months before the planned in-service date.

5.3   Applications Assessment

When making number allocations or reservations in the plan, TRR will take into account:

- The guiding principles set out in clause 5.1;

- The provisions of the relevant license of the service provider;

- The views of the applicant and other interested parties (through consultation, where appropriate);

- Any other matters that TRR deems relevant (e.g., any requirement to open a new range or make changes to the plan in order to allocate the required numbers);

- New number ranges or changes to the plan.

Before opening any protected ranges, TRR will specify a date for the initial receipt of applications for those ranges and, prior to that date, no applications will be accepted.

TRR will notify the ITU of changes to the plan in order to ensure that correct notification is given to foreign service providers, administrations, and other interested parties. Where TRR considers it necessary, it will also notify other overseas administrations directly.

5.3.1 Timescale for Handling Applications

TRR will make all reasonable efforts to make an allocation in accordance with these rules in response to applications for numbering capacity within a period of 28 calendar days following receipt of an application that contains all of the information required under clause 5.2. The 28 calendar day period may be exceeded where:

- Additional information is required from the applicant;

- A period of consultation is necessary, as initiated by TRR;

- Significant issues relating to the application cannot be reasonably handled within that period;

- TRR considers that an alternative period of time is justified.

Where TRR considers that an exception to the normal period is required, then it will inform the applicant in writing of its reasons and of the revised period.

5.3.2 Refusal of Applications

TRR may at its discretion refuse an application for an allocation or reservation of numbering capacity. Alternatively, TRR may grant the application not in full, or may attach conditions to the allocation that are consistent with the conventions and/or schedules and relate to the use and management of the numbering capacity allocated. Such conditions will be set out in the letter that accompanies the Allocation Certificate.

In the event of a refusal, whether in part or in full, or where specific conditions are attached, TRR will inform the applicant, in writing, of its reasons.

TRR may, following consultation with the applicant, make an alternative allocation that has the potential to satisfy the applicant's requirements without conflicting with the criteria that caused the original application to be refused.

Where TRR refuses an application, either in part or in full, or attaches specific conditions to the allocation, the applicant may write to TRR disputing the reasons for TRR's decision or providing more information for consideration of the application. TRR will then consider the request and respond to the applicant within 28 calendar days, except where a different period of time is justified.

5.3.3   Allocation of Numbers

Once TRR has decided to allocate a range of numbers to a service provider for a specific purpose, it will issue the provider an Allocation Certificate. The service provider may not make any use of the requested allocation of numbers until it has this certificate in its possession.

5.4   Conditions Placed on Allocations

5.4.1   General Conditions

In addition to any specific conditions that may apply (see clause 5.3), the following general conditions relating to the use and management of numbering capacity apply to all allocations made by TRR:

- The allocation shall be used for the purpose specified in the application (e.g., including any classification by type or tariff as set out in the plan);

- The person originally allocated range numbers shall be responsible for them;

- The holder of the allocation shall maintain a record of the numbers in use;

- The holder of the allocation shall maintain a record of ported numbers;

- A service provider shall not use numbers from the plan other than those allocated by TRR and for which the provider has a valid Allocation Certificate (see clause 5.3);

- The licensed service provider shall use numbers allocated in compliance with number format and length as specified in this plan. Numbers may not be shortened;

- Licensed service providers with allocated numbers, including providers with sub-allocations, shall not prevent or delay connection to those numbers, whether on their network or the network of other licensed service providers.

5.4.2   Changes to Allocations

Those who have been allocated numbering capacity are required to apply to TRR to make any changes:

- In the ownership of the right to use numbers;

- In the purpose or use of the numbering allocation, or

- Which relate to conditions of use placed on the allocation.

5.4.3   Audit Process

Each holder of an allocation shall submit to TRR its annual numbering report. That report shall refer to information at the calendar year end and shall be submitted to TRR within one month of the end of that year. The following information shall be provided in the report for each allocation:

- The current use of the allocation;

- Number blocks assigned to subscribers (in-service);

- Details of number blocks set aside for planned growth, customer orders or other usage, with explanations;

- Number blocks allocated to any person for purposes other than end use;

- The proportion of numbers ported, at the request of subscribers, to another service provider, including those ported before allocation to a specific subscriber.

Each licensed service provider's annual numbering report shall also provide:

- A three-year estimate of demand within significant ranges (TRR may specify these in a more detailed manner);

- Any other information requested by TRR.

This information shall be supplied in a format specified by TRR (see Appendix A).

Where TRR has concerns regarding the accuracy of the information provided, it may inspect the service provider's records and internal procedures and require changes to ensure conformance with this NNP and it rules and procedures.

5.4.4   TRR Annual Numbering Report

TRR will prepare an annual numbering report on the organization and use of the plan for publication each year, usually in the month of June.

5.5   Re-allocation and Withdrawal of Numbers

5.5.1   Reallocation

If a substantial proportion of numbers from an allocation has been transferred (e.g., ported) to another service provider, TRR may, with the agreement of the service providers concerned, re-allocate the number block to the provider who has most users in the block. TRR will re-allocate

number blocks only when it has received the written consent of both the existing and the intended new provider. In these circumstances the original Allocation Certificate will be withdrawn and a new one issued to the new holder of the allocation.

5.5.2 *Withdrawal*

TRR may withdraw capacity that it has allocated, or part of such capacity, if its continued use or allocation is not in compliance with:

- The plan, including the rules and/or schedules;

- Any specific conditions of the allocation; or

- It is no longer required.

An in-service numbering range allocated by TRR may be withdrawn only after TRR has consulted with interested parties for a period of not less than 28 calendar days. It will be subject to a period of notice of not less than three months following that consultation.

If an allocation or part of an allocation is not brought into service within one year, it may be withdrawn after consultation with interested parties. This applies to new allocated blocks only.

5.6 Notification of Number Allocation and Activation of Numbers

TRR will, via publication on its website (and, if TRR at its own discretion considers necessary, via other appropriate means), inform other licensed service providers in Vanuatu, and, if necessary, other relevant authorities, including ITU, of the new number allocation. Other licensed service providers, interconnected with the service provider that has been allocated new numbers, shall ensure activation of these numbers in their networks and, if applicable, transit of the traffic to these numbers through their networks as soon as possible. If the activation takes more than one month from the date of publication of the relevant information on TRR's website or from the date of receiving a direct request to activate numbers (whichever is the earliest), the activating service provider shall, before the expiration of that period, inform TRR accordingly and provide justification for a specific activation period.

Those who have been allocated numbering capacity are required to advise TRR, on an ongoing basis, of the names and contact details of persons in their organizations to which Allocation Certificates should be sent and who should be contacted for other numbering issues.

TRR will maintain a list of such contacts and will make it available on request to all service providers listed on it, and others who, in TRR's opinion, have need of that information.

5.7 National Numbering Plan Records

TRR will maintain comprehensive records of the status of all numbers referred to in the plan. The number list will be kept by TRR and made available on its website. TRR will update the list on its website within five working days of changes being made.

5.7.1 *Publication of Changes*

In addition to updating the number list within five working days of a relevant action being taken, TRR will publish confirmations of allocations or withdrawals, setting out the numbers or number range(s) being allocated or withdrawn, the person to whom the allocation has been made or from whom it has been withdrawn, and the action date.

5.7.2 *Status Indicators*

Those parts of the plan that are not designated have not been set aside for a use specified in the schedules, and are therefore not available for allocation and use.

Numbers that have been designated will, unless this is with reference to a Type A or Type C Short Code, have one of the following more specific status indicators in the number list:

- **Allocated** - Numbers that have been allocated to a service provider whose name will be listed alongside. While the majority of numbers shown as allocated may also be in service, these records will not contain information about in-service dates. In addition, allocations will not appear with full details on the number list when an applicant maintains a requirement to protect commercially sensitive information prior to the opening of service, subject to TRR's agreement with such a requirement.

- **Free** - Indicates that these numbers are available for allocation. Applicants should note that a number block shown as free could have already been requested by another service provider between the time of the last update of the number list and the time number list is updated to show the number block as allocated, there is no status of 'applied for'. TRR may decide that specific numbers of number ranges are not normally available for allocation while other numbers are still available for allocation for the same purpose. Such status of the number or number range will be indicated in the number list.

- **Protected** - Indicates that numbers are protected until the plan is changed or, where a date is shown, until that date. Numbers may be protected for purposes of planning or to avoid temporary or permanent dialing problems.

5.8   Procedure for National Numbering Plan Review

5.8.1 *Reviews of the Plan*

TRR may from time to time review the plan at its own initiative, or upon a request in writing by any licensed service provider, subscriber, or other interested party. The normal consultation period for changes to the plan will be three months. However, in exceptional circumstances, a shorter consultation period may be appropriate.

5.8.2 *Structure of Rules and Schedules*

The general rules or principles concerning the procedures for applications, withdrawals and other operations of the plan from both TRR's and applicants' points of view. Specific rules relating to numbers within the plan are defined in the schedules below (Section 6).

5.9   Charging for Numbers

TRR may consider introducing a regulation on charging for numbers. Such fees will become payable from publication of TRR's scale of fees. The charges to be applied may be reviewed from time to time following consultation.

Number applications (including applications for reservation and allocation of numbers) will incur an administration charge in accordance with TRR's scale of fees.

Licensed service providers will have to pay for numbers allocated an annual fee (normally payable on a quarterly basis) in accordance with TRR's scale of fees.

6   SCHEDULES

The following are the NNP schedules that provide rules for the use of numbering ranges in the Republic of Vanuatu.

6.1   The National Significant Number

The NSN is 7 digits for mobile services and 5 for fixed telephony (except for short codes), notated by the sequence ABCDEFG and ABCDE respectively. The NSN length for Access Codes varies depending on the use of the code and is described in Table 4-1.

6.2   Allocation Order

Numbers will normally be allocated from the lowest available number block upwards – exceptions to this rule will be made only at TRR's discretion subject to sufficient justification provided by the licensed service provider.

6.3   Standards and Standard Presentation

6.3.1   Standards

So far as it is practicable, the Vanuatu NNP conforms to relevant international standards.

6.3.2   International Service Numbering

ITU-T series E recommendations describe the role of the ITU-T with regard to international public telecommunications numbering plans and the introduction of specific global services (i.e., not related to a specific country). The global services using numbering resources administered by the ITU-T can be used by end-users located within Vanuatu.

6.3.3   Country Code

The Country Code allocated by the ITU-T to Vanuatu is 678. This code follows the international access prefix on calls made from abroad to Vanuatu, and should be followed by the NSN of the destination in Vanuatu.

6.3.4   Maximum Number of Digits

ITU-T Recommendation E.164 Nov-2010, stipulates that the maximum number of digits that a national number may have is 15 (excluding the international dialing prefix). This requirement is implemented in Vanuatu according to this plan.

6.3.5   Alphanumeric Characters

The plan will use the decimal character set 0-9 for all number allocations. Letters and other non-decimal characters will not form a part of the plan.

6.3.6   *International Prefix (AB = 00)*

The international prefix 00 is used for international dialing for calls originated in Vanuatu. Where a service provider supports the use of handsets with the '+' character, this shall be interpreted as the international prefix when used at the beginning of a dialing sequence.

6.3.7   *Consistency of Presentation*

Numbers should retain a consistent format in presentation and there must be no intention to deceive or confuse. The recommended formats for presentation of SNs under the plan are as follows:

NSN length	Presentation Format
International	+ 678 (NSN format)
7 digits	ABCDEFG
6 digits	ABCDEF
5 digits	ABCDE
4 digits	ABCD
3 digits	ABC

Table 6-1 Number Presentation Formats

6.4   Access Numbers

The numbers series with the leading digit of 0 is designated for use as access numbers. With this leading digit the designations are set out in Table 6-2.

AB	Designation	Number Length
00	International access	2
01	Protected	
02	Protected Carrier Pre Selection	5
03	Protected	TBD
04	Protected for Carrier Selection	4
05	Protected for Number Portability	5
06	Protected	TBD
07	Protected	TBD
08	Toll Free	6
09	0900 Premium Rate Services, all other number blocks Protected	7 TBD

Table 6-2 Access Code Designations

6.4.1 Carrier Pre-Selection Codes

The number series 02CDE is designated for national carrier pre selection (CPS) access numbers, where the CDE digits identify a licensed service provider or a specific service of a licensed service provider that needs to be distinguished from other similar services and be available for pre selection. No operator shall have a right to use such numbers for call-by-call selection of such an operator (including for the override of CPS) or any other use where a caller has to enter these digits by himself/herself.

These codes will be allocated in single number blocks with a utilization target of 100%.

6.4.2 Carrier Selection Codes

The number series 04CD is designated for 4-digit access numbers for carrier selection (CS), where the CD digits identify a licensed service provider or a specific service of a licensed service provider, which needs to be distinguished from other similar services via the use of a special access number (prefix).

These codes will be allocated in single number blocks with a utilization target of 100%.

6.4.3 Number Portability Codes

The number series 05ABC is designated for 5-digit Number Portability routing codes. These codes are never dialed by end users but used as a number prefix within networks by Services Providers to identify call routing. Any calls dialed by an end user starting with these codes should be rejected as number unobtainable.

These codes will be allocated in single number blocks with a utilization target of 100%.

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6.4.4   Special Services Numbers (08 and 09 Series)

The 0900 and 0808 number series is designated exclusively for special services. The cost of the call to services in the 0900 and 0808 number series shall be:

- Paid wholly by the called party;

- Shared between the caller and the called party; or

- Paid wholly by the caller.

At this time, only Toll Free and Premium Rate services have been identified and included within the NNP.

6.4.5   Toll Free Codes

The number series 08CDEF is used for the toll-free service (where the called party pays the call costs, not the calling party) in Vanuatu.

These codes will be allocated in blocks of ten numbers with a utilization target of 80%.

6.4.6   Premium Rate Services Numbers (0900 Series)

The number series 0900EFG has been designated for premium rate services. These are services where the calling party pays a sum in addition to the cost of the call for the service received. For the avoidance of doubt Short Codes may not be used for Premium Rate services.

Service providers are required to publish allocations, sub-allocations and the tariffs associated with the number allocated to them.

These codes will be allocated in blocks of ten numbers with a utilization target of 80%.

6.5   Short Codes

6.5.1   General

Short codes are categorized by the type of service for which they are used. There are three types of short codes: Types A, B and C. These types are defined in clause 4.2 of this plan. This Schedule regulates all types of short codes.

These codes will be allocated in single number blocks with a utilization target of 100%.

6.5.2   Short Codes Harmonization

Short codes within Vanuatu will be harmonized from their current status. TRR will lead the harmonization, described in clause 4.2, to achieve the structure shown in Table 6-3.

Once the harmonization is complete TRR will consider making codes starting with other leading digits available for allocation to Service Providers to use for SMS based services. It will be the responsibility of the Service providers to ensure that the use of such codes does not conflict with message services to end users assigned numbers beginning with the same leading digits (or any

protected number blocks). Where possible TRR will designate a number of these additional ranges as Type B, for Value Added Services (VAS) SMS.

Numbering Range Short Codes	Application	Type
10X	Protected	C
11X	Life and Safety Services – Voice and SMS	A
12X	Operator specific internal services	C
13X	Operator specific internal services	C
14X	Operator specific internal services	C
15X	Value Added Services (VAS) SMS	B
16X	Protected Government and NGO Public Information services – Voice and SMS	A
17X	Operator specific internal services	C
18X	Value Added Services (VAS) SMS	B
19X	Directory and customer assistance	

Table 6-3 Short Codes Assignment Rule

ITU-T Recommendation E.161.1 identifies the codes 112 and 911 as the preferred code for access to a single Emergency Services call center and both of the codes have widespread end user recognition due to their use in a variety of countries. The 112 code is identified in the GSM standards for this purpose. As both these codes are currently in use within Vanuatu, 112 will be used as the primary number and 911 as the secondary to cater for visitors who are used to 911 as their emergency number.

6.5.3   Type C Short Codes

Wherever possible, and in the interests of end user familiarity, Service providers should use identical Type C codes for similar services, for example they should adopt the same code for access to their Voicemail service.

Due to the very limited number of Short Codes within this plan, TRR will strongly encourage this adoption of common codes when receiving allocation applications for Short Codes and during the harmonization work.

6.6   Fixed Numbers

The 22-29, 30, 36 and 37, 380-388, 484-489 and 88 are number series designated for fixed services as 5-digit numbers, using the presentation format ABCDE. Allocation of numbers for fixed services will be made in blocks of 1,000 and 10,000 numbers from levels 2 and 3 only.

Service Providers must achieve a 60% utilization with existing allocations of number blocks for fixed service before they may apply for additional number blocks.

6.7   Mobile Numbers

The 53-56, 572-575, 59, 70-71, 73-77 are number series designated for mobile services as 7-digit numbers using the presentation format ABCDEFG. Allocation of numbers for mobile services will be made from levels 5 and 7 in blocks of 10,000 numbers. Service Providers must achieve a 75% utilization with existing allocations of number blocks for mobile service before they may apply for additional number blocks.

6.8   Internet Dial-up Numbers

The 840 number series is designated for Internet Dial-up services, as 5-digit numbers. Allocation of numbers for Internet Dial-up services will be made in blocks of 10 numbers. Once this capacity is fully allocated another range in the level 8 series will be designated by TRR. Service Providers must achieve a 60% utilization with existing allocations of number blocks for Internet Dial-up service before they may apply for additional number blocks.

6.9   VOIP including Nomadic, excluding Mobile Services

The 9000 - 9009 number series is designated for VOIP (including Nomadic and excluding Mobile Services), as 7-digit numbers, using the presentation format ABCDEFG. Allocation of numbers for VOIP and Nomadic VOIP services will be made in blocks of 1,000 from level 9000 whilst capacity remains. Once this capacity is fully allocated another range in the level 900 series will be designated by TRR. Service Providers must achieve a 75% utilization with existing allocations of number blocks for VOIP and Nomadic VOIP, excluding mobile services, before they may apply for additional number blocks.

6.10   USSD Codes

6.10.1 Use of '*' and '#' characters

At this time TRR will not include USSD (Unstructured Supplementary Service Data) codes within the National Numbering Plan and Service providers may use the codes at their own discretion for the benefit of the end users. A particular characteristic of these codes is that the end-user inserts the * character at the start of the code and the # character at the end. Therefore, they do not conflict with any other numbers within the National Numbering Plan.

The USSD codes should be used for value added services and should terminate at the local switch.

6.10.2 GSM Standards

Service Providers must adhere to the GSM standards: GSM 02.90 Unstructured Supplementary Service Data – Stage 1 (Customer Initiated USSD) and GSM 03.90 Unstructured Supplementary Service Data – Stage 2 (Network Initiated USSD) whenever they use the codes regardless of the type of network.

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TRR strongly encourages Service providers to co-ordinate their use of these codes so that the same code is used for the same or similar services.

6.11   Dialing Plan

Full 5-digit numbers shall always be used for calls to fixed services, and 7 digits for calls to mobile services. Full 7-digit numbers shall always be used for calls to premium rate services and universal numbers (except for short codes falling in the respective categories). Such numbers can be used as an NSN only or in the international format (Schedule 6.3.7); no prefixes can be used with these numbers except where the plan expressly allows them.

Type A and C short codes shall be dialed without any prefixes (including Access Numbers) from the networks of all licensed service providers. Type C short codes shall be dialed without any prefixes within the network of a specific service provider using this number. Type C short codes shall be accessible from any other network using the carrier selection code, as identified below, if the respective service provider has such a code.

6.12   Use of Numbers by Subscribers

Subscribers that have a number assigned to them shall have the right to use the number for making use of other services both of the service provider that has a number allocated to it, or of other service providers. Any licensed service provider is allowed to route calls directly to the subscriber, bypassing the network of the service provider to which the number is allocated, if it is technically possible to do it. The service provider to which the number is allocated does not have exclusive   right   to   terminate   calls   to   that   number.

7   OTHER CODES

TRR recognizes that other aspects of numbering must be managed as well and has started doing so, as is reflected in the plans for which it is responsible. These other aspects include the following:

- Data network identification codes (ITU-T Recommendations X.121 and X.122);

- Mobile network codes (ITU-T Recommendation E.212)

- National signaling point codes (ITU-T Recommendation Q.704)

- International signaling point codes (ITU-T Recommendation Q.708)

- Issuer identification number (ITU-T Recommendation E.118)

- Other similar codes as required.

Applications, reservations, and withdrawals for these codes are administered in the same way as other numbers, as detailed in the rules and procedures, taking into account adjustments as necessary, in particular in order to comply with the relevant ITU-T recommendations. Applicants for these codes and their uses shall also addition comply with the ITU-T recommendations.

8 APPENDIX A. LICENSED SERVICE PROVIDERS' NUMBERING REPORT TEMPLATE

The reporting template shall be filled in a Microsoft Excel spreadsheet, with a sheet assigned to each service. Each service will then be reported with the following headings shown with example data:

Service: e.g. Fixed, Mobile, Premium Rate, Special Services, etc.

Range: e.g. 7500000 – 7509999

Total Available Numbers: e.g. 10,000

Total Working Numbers[*]: e.g. 6,200

Total Spare Numbers[*]: e.g. 3,800

%Utilized End [Year X = Reported year]: e.g. 72.2%

%Annual Growth: e.g. 10.5%

%Utilized End [X+1]: e.g. 79.6%

%Utilized End [X+2]: e.g. 87.3%

%Utilized End [X+3]: e.g. 94.7%

A working number is a number that is in use by an end user, all other allocated numbers are spare.

9 APPENDIX B. LICENSED SERVICE PROVIDERS' NUMBERING APPLICATION FORM

Telecommunications and Radiocommunications Regulator		
Application Form for Allocation of Number Blocks		
Applicant Service Provider Information		Kind of Request
Name:		Allocation:
Company:		De Allocation:
Address:		Other:
Telephone:		
Fax:		
e-mail:		
Applicant's Reference Number:		TRR Reference Number
Applicant's License Reference:		
Block Number Requested:		

Range	From	To
1st Choice		
2nd Choice		
3rd Choice		

Proposed use of Requested Numbers:
Utilization achieved with previously allocated rights to use for this propose use: % New Service
Special Conditions/Remarks:

Applicant's Signature:		TRR Signature (app. Received):	
Name:	Date:	Name: Date:	
TRR Internal Use:		Listed on Website:	
Received and Logged:	Recorded Database:	Certificate Issued:	

Notes on completion:

Applicant's details: Should include the name of an authorized person, together with address and contact details for further correspondence.

Type of Request: One of the boxes should be ticked or information provided in the field "Other."

Reference numbers: Forms submitted to TRR should include an applicant's reference number by which the application can be tracked.

TRR will assign the application a TRR reference number during processing.

License reference: The identity of the license under which the application is being made.

Range requested: Applicants should enter here their first choice of Number Range. To allow for the possibility of coincident applications, second and (if required) third choice Number Ranges may also be included to cover the possibility that the first choice range has been allocated already. As a general principle one should cover one Number Range. In identifying the ranges applicants shall take into account the requirements of Schedule 1.2 of the plan.

Proposed use of requested numbers: A brief description of the use to which the additional numbers will be put and why the request has been made.

Special conditions / remarks: Applicants may identify any special conditions applied to the requested allocation or include additional remarks. If an applicant requests an allocation which does not conform to the requirements of Schedule 1.2 of the plan, the reasons should be explained here.

Signatures: The application only has force if it is signed by an authorized person. Receipt of an application is confirmed by signature of a responsible person at TRR.

10 APPENDIX C. NEW VANUATU NNP – NUMBERING SCHEME (5 digits fixed, 7 digits mobile, 7 digits nomadic including VOIP and excluding mobile)

1st Digit↓	2nd Digit →									
	0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
0	Int'l Access	Protected	Protected – CPS	Protected -	Protected – CS	Protected – NP	Protected	Protected	Toll-Free	0900 – PRS
1	Protected - Short Codes	Short Codes – Life & Safety – Voice and SMS	On-Net Short Codes	On-Net Short Codes	On-Net Short Codes	VAS SMS	Protected - Short Codes Government and NGO Public Information Services – Voice & SMS	On-Net Short Codes	VAS SMS	Directory & Customer Assistance
2	Protected	Protected	Fixed (Shefa)	Fixed (Shefa)	Fixed (Shefa)	Fixed (Shefa)	Fixed (Shefa)	Fixed (Shefa)	Fixed (Shefa) -	Fixed (Shefa)
3	Fixed - Non Geographical -	Protected	Protected	Protected	Protected	Protected	Fixed (Sanma) -	Fixed (Luganville)	380-388 Fixed (Penama/Torba)	Protected
4	Protected (Fixed)	Protected	Protected	Protected	Protected	Protected	Protected	Protected	480 – 489 Fixed	Protected

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		(Fixed)	(Fixed)	(Fixed)	(Fixed)	(Fixed)	(Fixed)	(Fixed)	Malampa	(Fixed)
5	Protected	Protected	Protected	Mobile -	Mobile -	Mobile	Mobile	572 – 575	Protected	Mobile
6	Reserved Break Out									
7	Mobile	Mobile	Protected (Mobile)	Mobile	Mobile	Mobile	Mobile	Mobile	Protected (Mobile)	Protected (Mobile)
8	Protected	Protected	Protected	Protected	Protected	Protected	Protected	Protected	88 – Fixed - Tafea	Protected
9	9000 – 9009 – Nomadic/VOIP	Protected	Protected	Protected	Protected	Protected	Protected	Protected	Protected	Protected

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11 APPENDIX D. CURRENT VANUATU NATIONAL NUMBERING ALLOCATION PLAN

1st Digit ↓	2nd Second Digit →									
	0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
0	Int'l Access	Protected	Protected CPS	Protected	Protected CPS	Protected CPS	Protected	Protected	Toll-Free	0900 - PRS
1	Protected Short Codes	Short Codes – Life & Safety – Voice & SMS	On-Net Short Codes	On-Net Short Codes	On-Net Short Codes	VAS SMS	Protected Government and NGO Public Information Services – Voice & SMS	On-Net Short Codes	VAS SMS	Directory & Customer Assistance
2	Protected	Protected	Fixed – TVL Shefa	Fixed – TVL Shefa	Fixed – TVL Shefa	Fixed – TVL Shefa	Fixed – TVL Shefa	Fixed – TVL Shefa	Fixed – TVL Shefa	Fixed – TVL Shefa

3	Fixed – Non Geographical - TVL	Protected	Protected	Protected	Protected	Protected	Fixed – TVL -Sanma	Fixed – TVL - Luganville	Fixed – TVL Penama/Torba	Protected
4	Protected - Fixed	Protected - Fixed	Protected - Fixed	Protected - Fixed	Protected - Fixed	Protected - Fixed	Protected - Fixed	Protected - Fixed	Fixed – TVL - Malampa	Protected - Fixed
5	Protected – Mobile - Digicel	Protected – Mobile - Digicel	Protected – Mobile - Digicel	Mobile - Digicel	Mobile - Digicel	Mobile - Digicel	Mobile - Digicel	572-575 – Mobile Digicel	Protected – Mobile - Digicel	Mobile - Digicel
6	Protected – Break out									
7	Mobile - TVL	Mobile - TVL	Protected – Mobile -TVL	Mobile - TVL	Mobile - TVL	Mobile - TVL	Mobile - TVL	Mobile - TVL	Protected – Mobile -TVL	Protected – Mobile -TVL
8	Protected	Protected	Protected	Protected	Protected	Protected	Protected	Protected	88 – Fixed – TVL - Tafea	Protected
9	9000-9009 – Nomadic & VOIP – Can'l	Protected	Protected	Protected	Protected	Protected	Protected	Protected	Protected	Protected

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